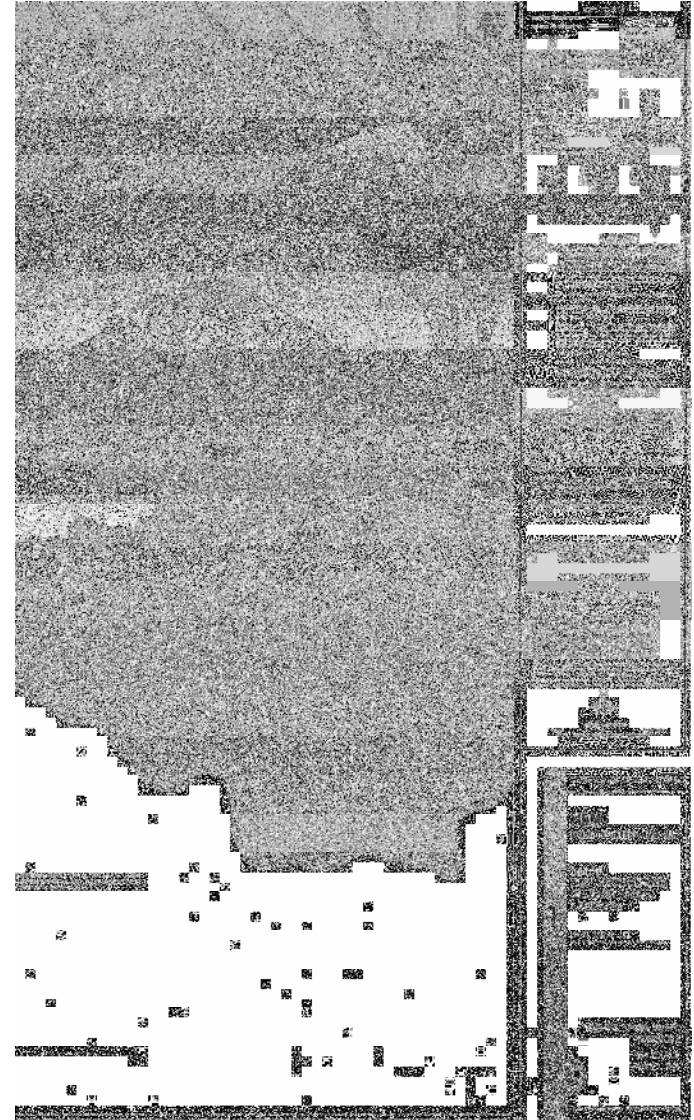


Utilizing Mapping and Modeling in Hazard Mitigation Planning and Land Use

Hazard Mitigation

- **Reducing risks** to people and property from natural and technological disasters.
- **Recognizing and adapting to hazards, increasing the resilience, and decreasing the vulnerability**

Maps and Modeling are one source of information in which to base decisions



Question for the Class: Note the following points from the New Orleans FIRM as see in Figure 14.1 (FEMA firm2252030115E).

- **What is the date of the publication of the FIRM?**
- **The FIRM shows flood zones for areas of the City of New Orleans? Are there some areas of the City on high ground and not in the flood zone?**
- **The FIRM is based on some assumptions that influence the description of flood hazards in New Orleans. Given what happened in Hurricane Katrina, do you think that the FIRM was based on the assumption that flooding would result from storm surge and not levee breaches or that the pumping system in the City will not fail?**
- **Ask the class to explain how the FEMA FIRM fits within hazard mitigation.**

- **Question: How do we use FIRMs in the hazard mitigation process? What are the limitations of these maps? How can local communities overcome these limitations?**

Hazard Mitigation Strategies

Hazard Mitigation Strategies

- Avoidance of hazards areas
 - Land use planning and regulation
 - Flood insurance program (FIP)
 - Relocation of homes & businesses
- Resilience of the built environment
 - Building codes
 - Hurricane straps
- Strengthen critical infrastructure
 - Strengthen bridges, buildings, utilities

Focus of Hazard Mitigation

- Focus on the long term
- Support social, economic, and environmental benefits

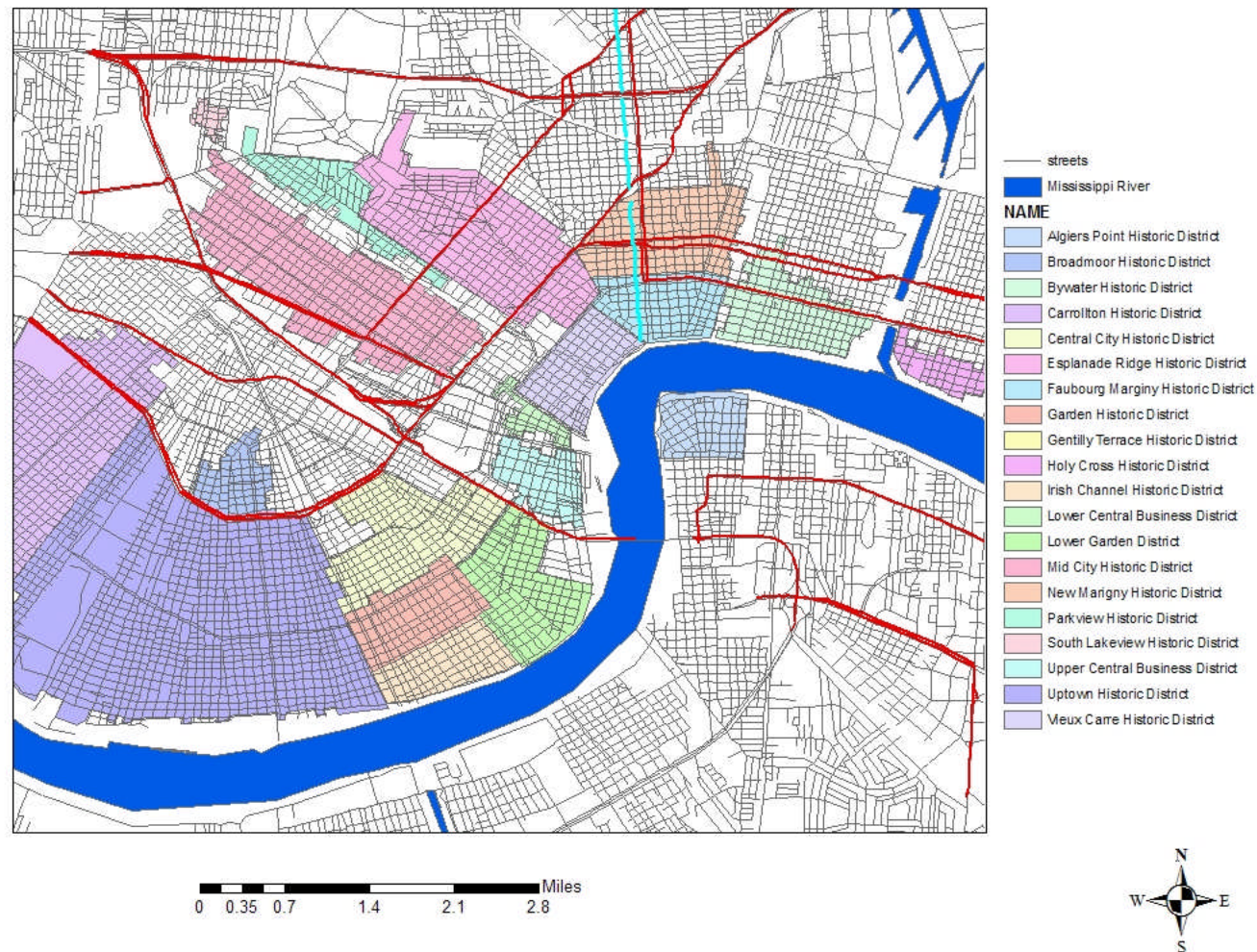


Figure 14:10 Historic Districts of New Orleans

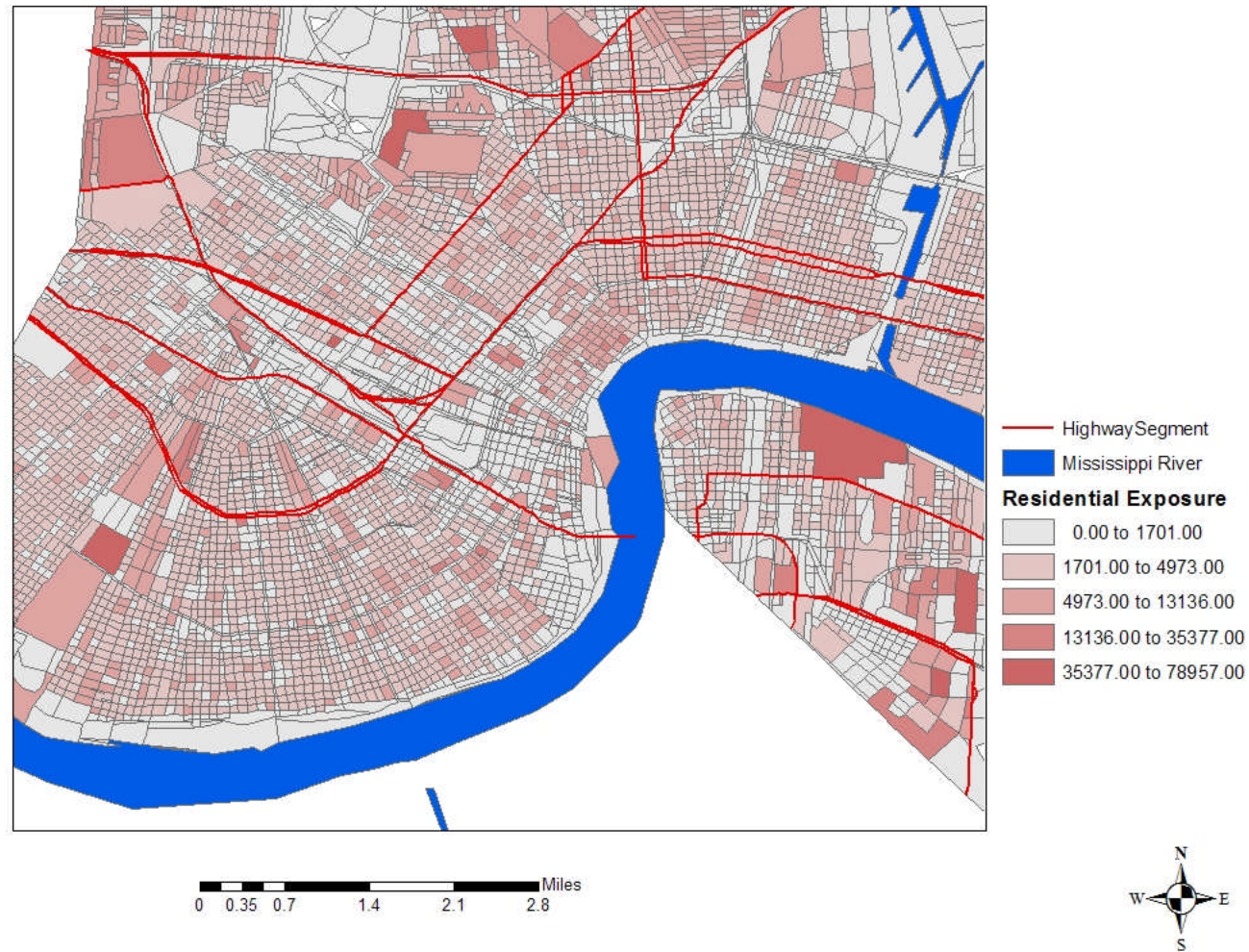


Figure 14:11 Value of Residential Housing by Census Block in New Orleans (HAZUS-MH in \$millions)

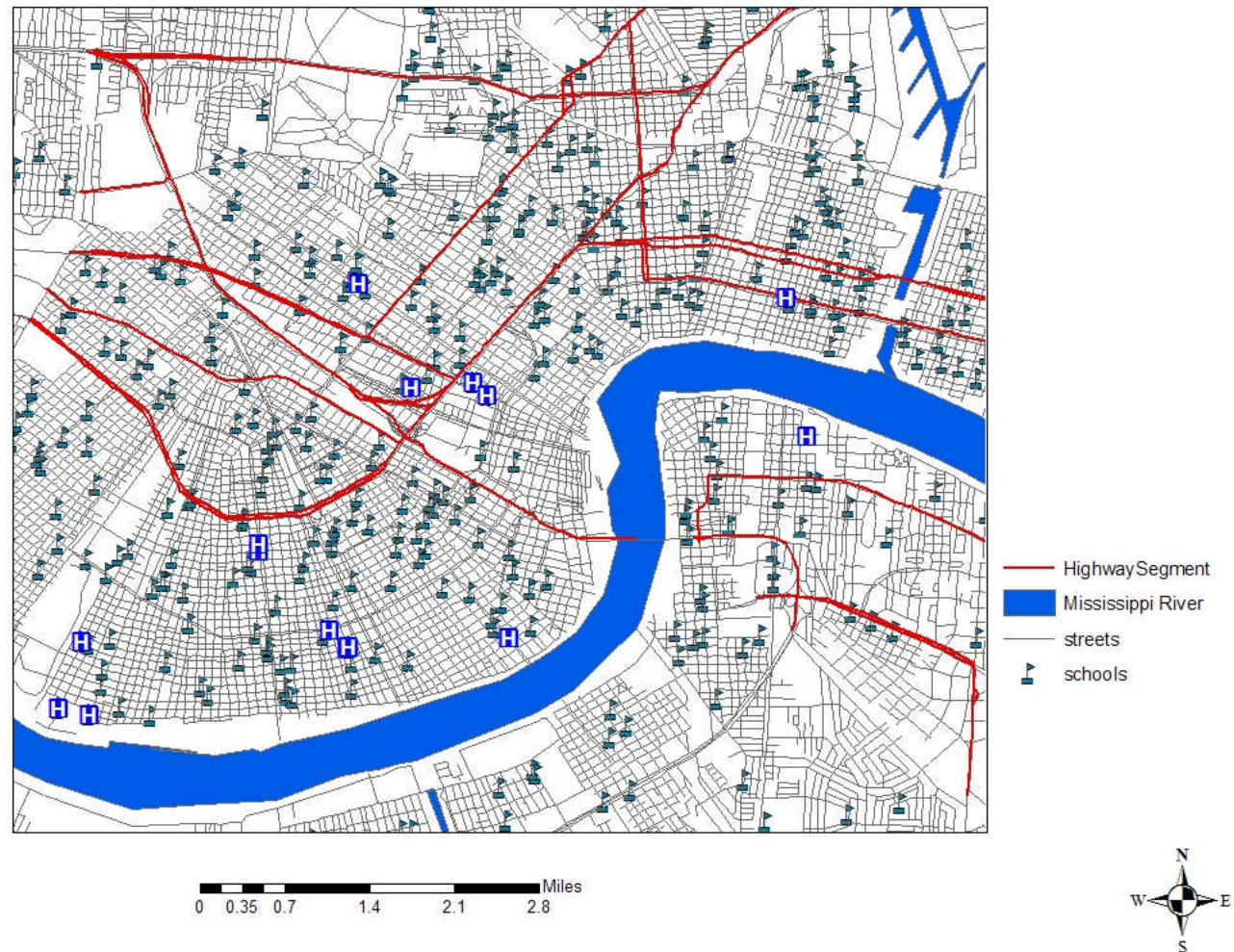


Figure 14:12 Schools and Hospitals in New Orleans

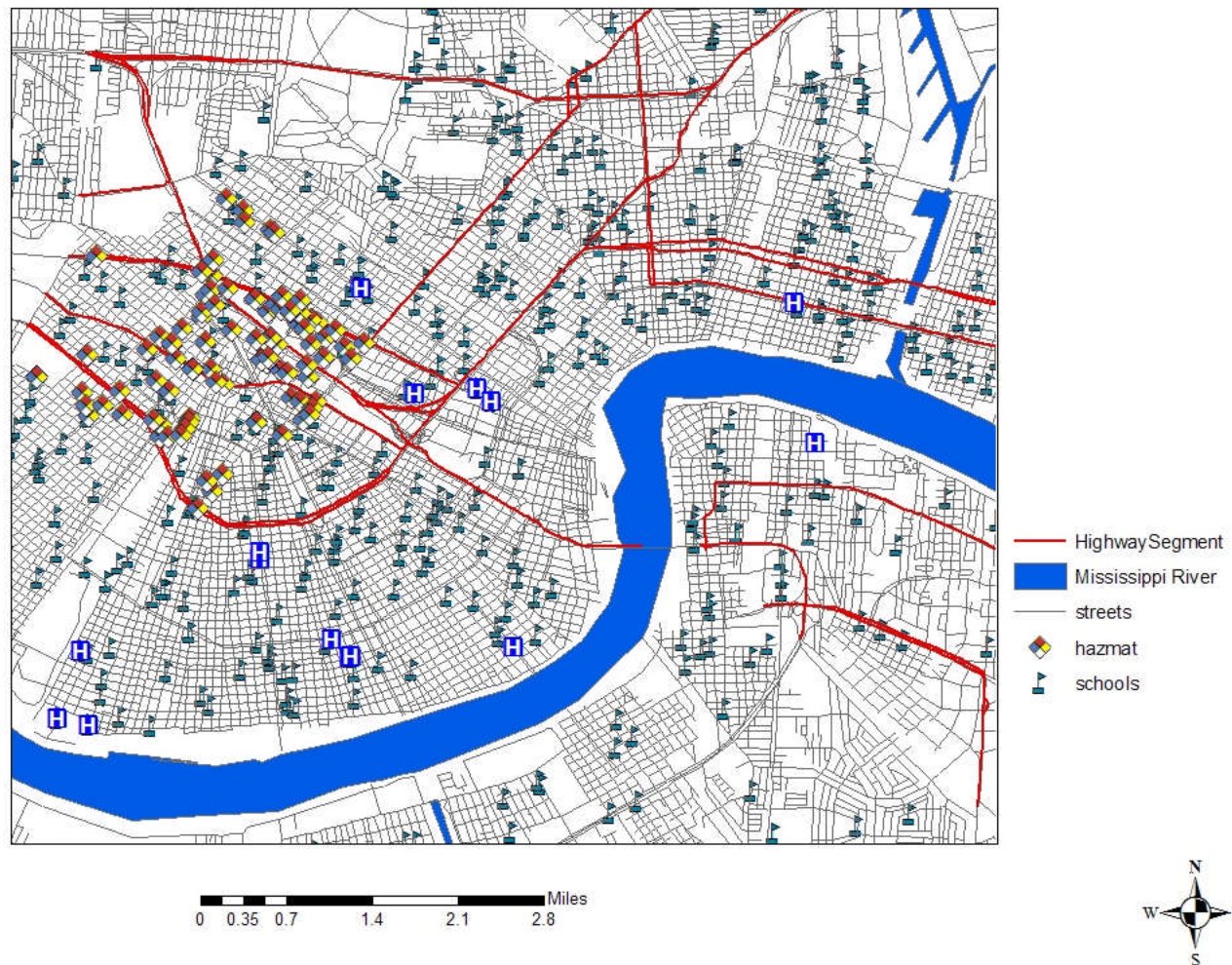


Figure 14:13 Hazardous Materials Site, Schools and Hospitals in New Orleans
(From HAZUS-MH)

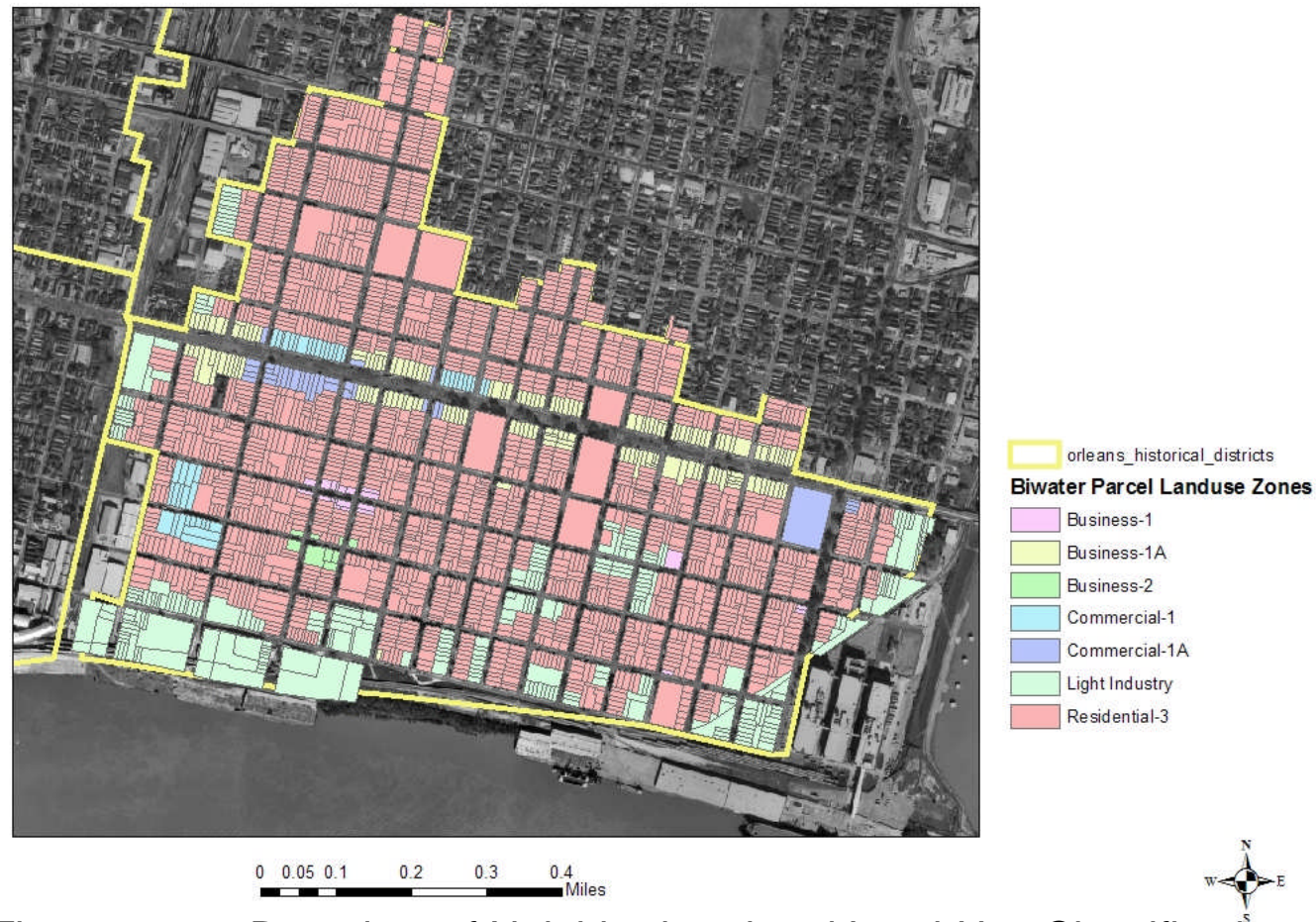


Figure 14:14 Boundary of Neighborhood and Land-Use Classification by Parcels in New Orleans (files from New Orleans Regional Planning Commission)

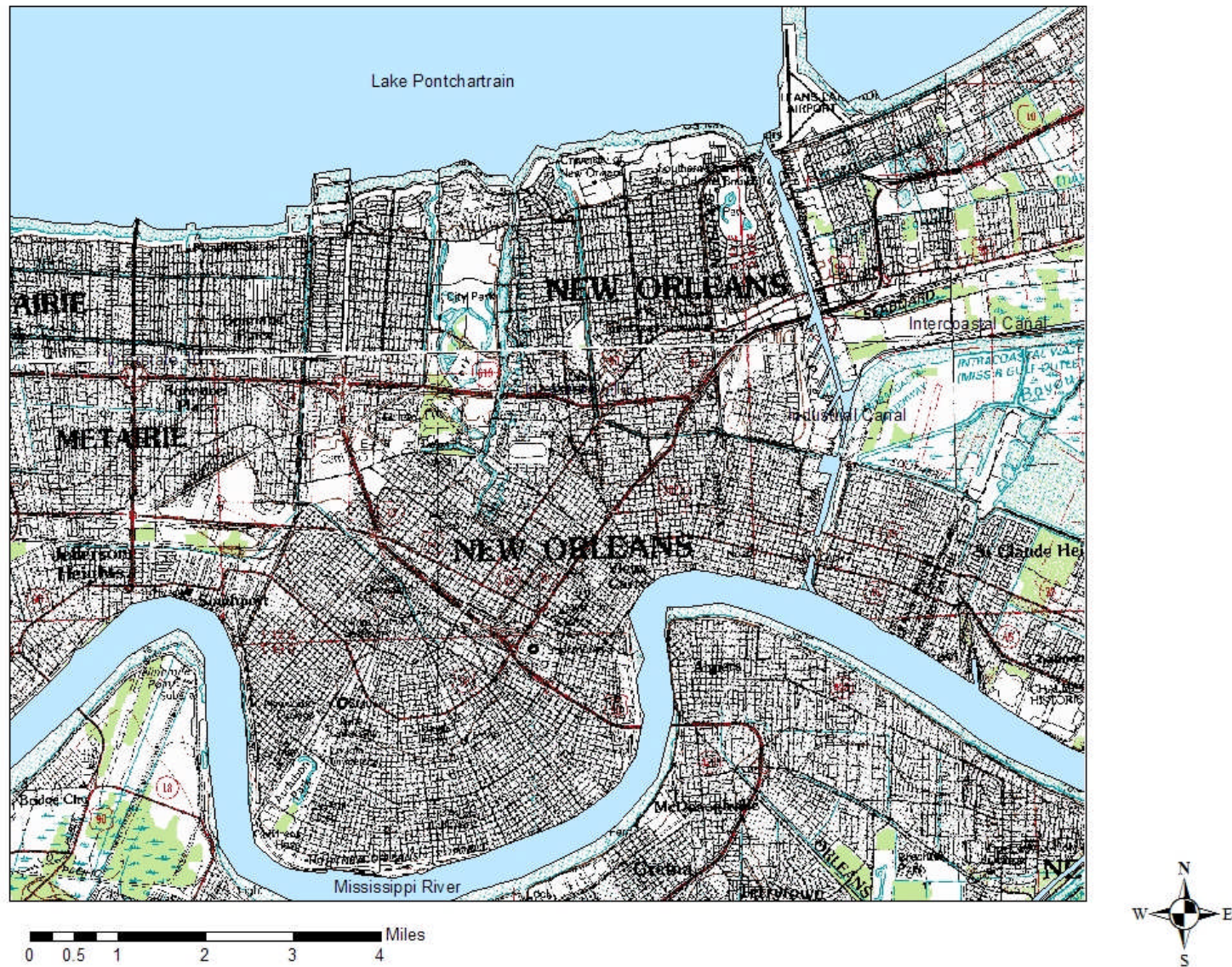


Figure 14:15 Major Transportation Infrastructure (Rail, Highway, and Water)
On USGS 1:100,000 QUAD Sheet

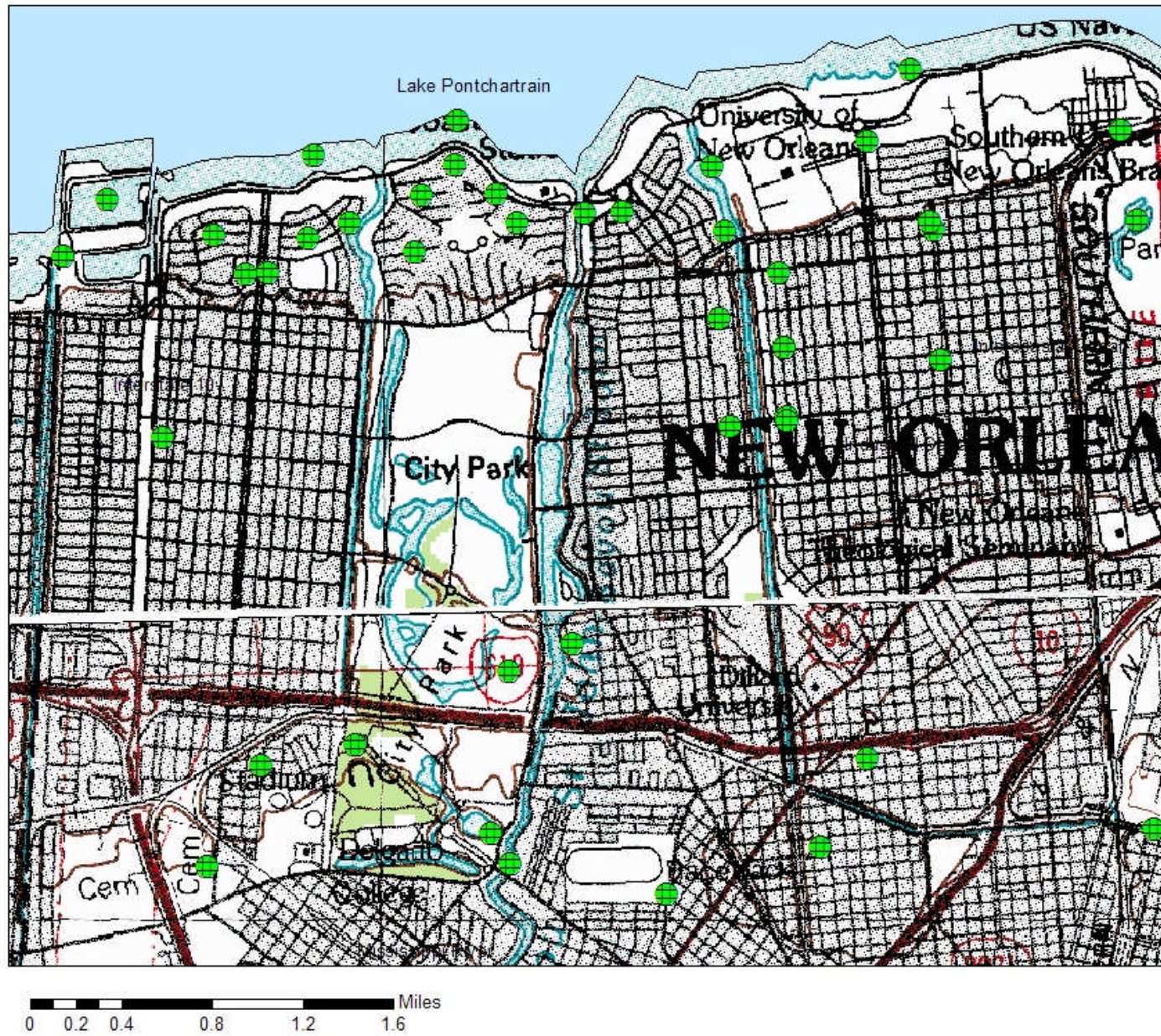


Figure 14:16 New Orleans City Parks & Recreational Areas
on USGS 1:100,000 QUAD Sheet

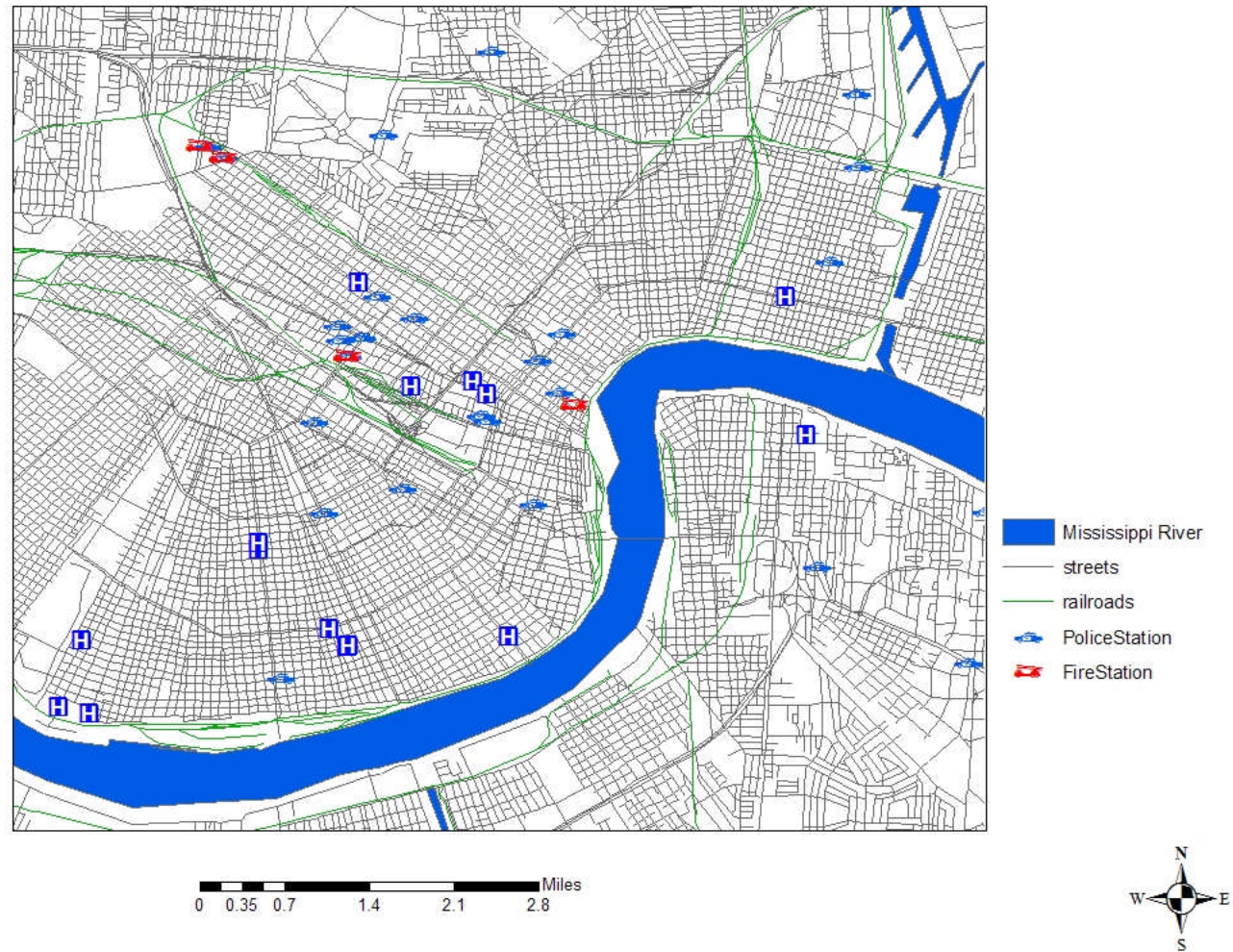


Figure 14:17 Police and Fire Stations in New Orleans (HAZUS-MH)